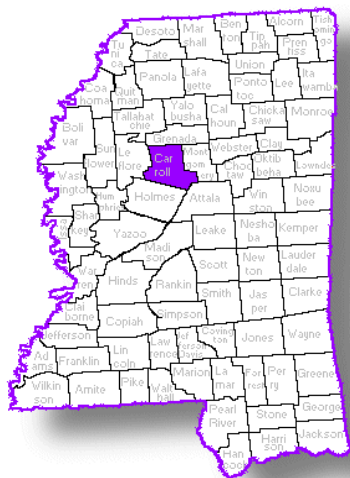


Carroll County Health Profile



State of Mississippi
Mississippi State Department of Health
Office of Science

March 2003

Mississippi State Department of Health Office of Science

Brian W. Amy, M.D., M.H.A., M.P.H.
State Health Officer

Peter J. Fos, Ph.D, M.P.H.
Chief Science Officer

Claudia Dvorak, M.L.S., M.B.A.
Mississippi State Department of Health
Office of Science
(601)576-8046
570 E. Woodrow Wilson
Jackson, MS 39215



Table of Contents

	Table of Contents	i
	Introduction	iii
I.	County Demographic Distribution	
	County Demographic Distribution	1
	Income and Poverty	2
	Racial Distribution	3
	Age Distribution	4
	Workforce	5
	County Racial Change, 1990 - 2000	6
	Projections for Population Over 64 Years	7
	County Nursing Home Beds, Projection	8
II.	Maternal and Child Health Indicators	
	Pregnancy, Infancy, Infant Mortality	9
	Low Birthweight Newborns	10
	Births to Unmarried Mothers	11
	Unmarried Mother Births 1991 - 2001	12
	Infant Mortality	13
	Neonatal Mortality	14
	Postneonatal Mortality	15
	Births to Teenage Mothers	16
III.	Illness and Death	
	Statewide Causes of Death	17
	Causes of Death, All Races	18
	Causes of Death, Whites	19
	Cause of Death, Non-Whites	20
	West Nile Virus, Human	21
	West Nile Virus, Animal	22
IV.	Injuries	
	Accidental Deaths, Causes	23
	Spinal Cord Injuries	24
	Injury Prevention	25
	Tobacco, School Health Nurses	26

V.	Public Health Services to the County	
	Women, Infants, Children & Child Health	27
	Maternity/Perinatal Services	28
	Genetics, Family Planning	29
	Immunization	30
	Tuberculosis, STD's	31
	Environmental Inspections	32
	Boiler and Pressure Vessel Safety	33
	Public Water Supply	34

Introduction

The Mississippi State Department of Health's mission is to promote and protect the health of the citizens of Mississippi. The Mississippi State Department of Health strives for excellence in government, cultural competence in the carrying out of our mission, and to seek local solutions to local problems.

This report is intended to be a general overview of health status for a specific County. Since health status and health needs vary by sex, age, and race, we are starting with a population snapshot of the County to show how it compares with the State as a whole.

Throughout this Profile, each chart is clearly labeled regarding health factors which were measured for that chart. Data was utilized from statistical reports from the Mississippi State Department of Health, the Mississippi Data Center, and the U.S. Census.

For most charts, we provide a basis for comparison. Sometimes it is how a health measure has changed over time, sometimes it is a comparison of the County to the State, or to the Nation.

The most difficult aspect of preparing this Profile was trying to address racial and ethnic sensitivities. Our largest minority group is that commonly referred to as “Black” or “African American.” In the reports which have been collected by Vital Statistics for years, the traditional nomenclature was “Non-White” and we have followed that tradition in our labels.

For most of the health indices reported in this County Profile, Non-White rates are considerably worse than White rates. This same trend is seen across Mississippi and the United States. We believe that this reflects lower average levels of personal income and educational attainment in the Non-White community, as compared to the White community.

Until the social and economic inequities between Whites and Blacks can be addressed, many of the gaps between Whites and Non-Whites in illness and death rates can be substantially reduced through the provision of public health, medical, and social services.

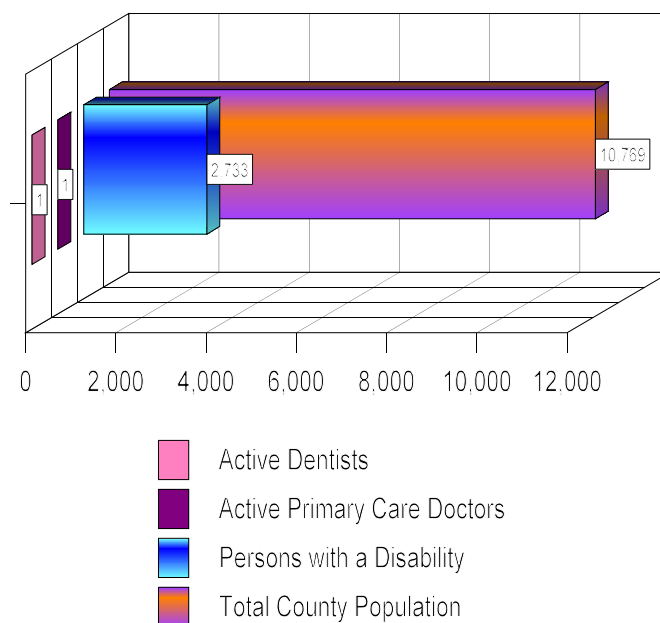
County Demographic Distribution

The availability and accessibility of health care services is essential to meet the needs of the state's population. **Sixty-four of Mississippi's 82 counties are designated as health professional shortage areas, including Carroll County¹.** This is based on the desired ratio of one primary care provider for 3500 population.

Carroll County Total Population = 10,769

Projected Population 2005 = 11,692²

Carroll County



In FY 2002, Carroll County had 1 Primary Care Physician and 1 dentist.³

¹The US Dept. of Health and Human Services defines a health professional shortage area as a geographic area encompassing 30 minutes travel time and containing at least 3,500 persons per primary care physician. MS State Health Plan FY2003, p. V-2.

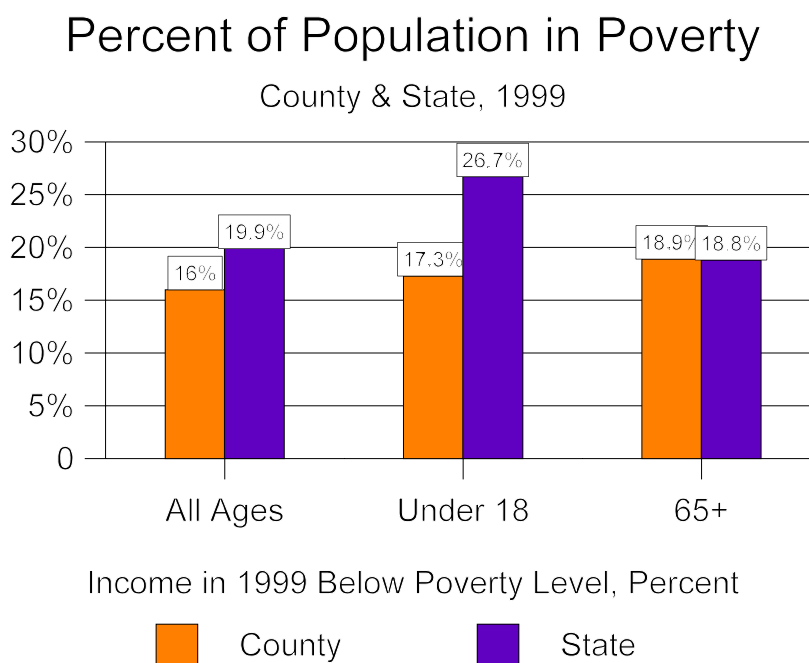
²US Census 2000 and MS Population Projections, MS Institutions of Higher Learning, Sept. 1998.

³MSDH State Health Plan FY2003.

Income and Poverty

Carroll County, 1999

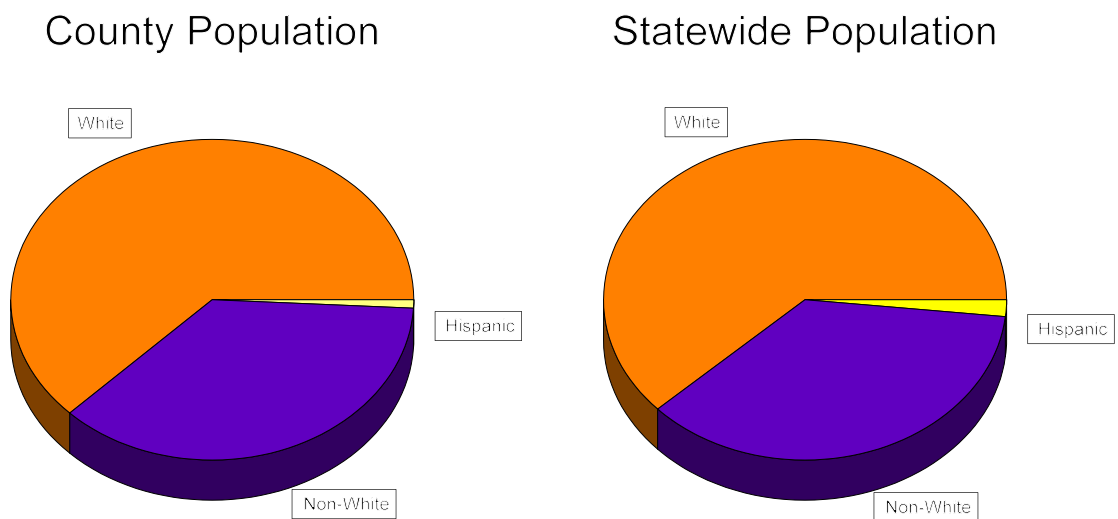
In Mississippi as a whole, 19.9% of the population, of all ages, had income in 1999 below poverty level. In Carroll County, 16.0% of the population, of all ages, had income in 1999 below poverty level, while 17.3% of related children under the age of 18 were determined to have poverty status and 23.5% over age 65 had income below poverty level in 1999.



Carroll County has a lower percentage of population in poverty than the percentage Statewide except for the population over the age of 65, where the percentage is the same as is seen Statewide.

Source: US Census, 2000

Racial Distribution

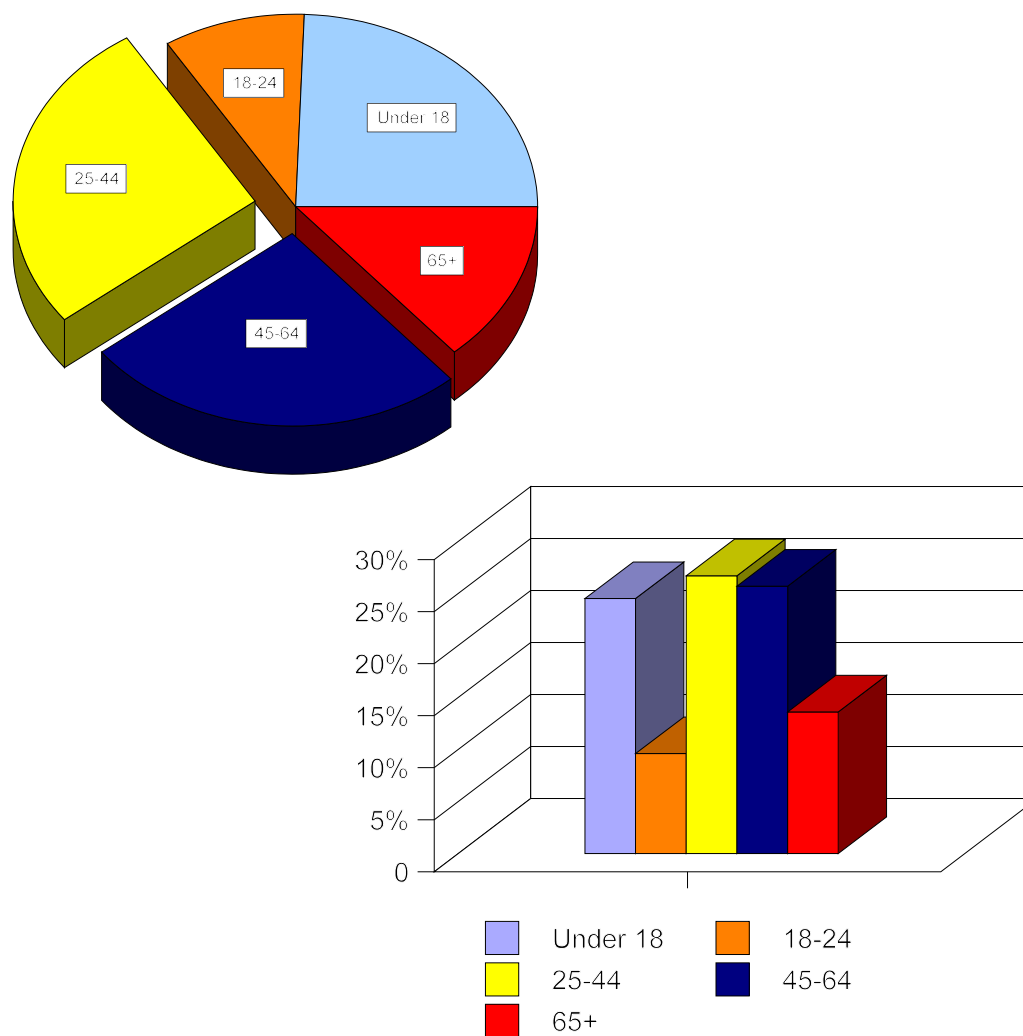


Carroll County has a Non-White population of 36.6%, the same percentage as the State's 36.3%, and a White population of 62.7%, slightly higher than the State's 61.4%. The Hispanic population of Carroll County is 0.7%, slightly lower than the State's 1.4%.

Carroll County has a comparable racial distribution to Statewide percentages.

Source: U.S. Census 2000

County Age Distribution, Percent



County population shows a predominance of three age groups: those under age 25-44, those aged 45-64, and those under age 18. Carroll County has a slightly lower percentage of population in those age groups than is seen Statewide, and a slightly higher percentage of persons over age 65.

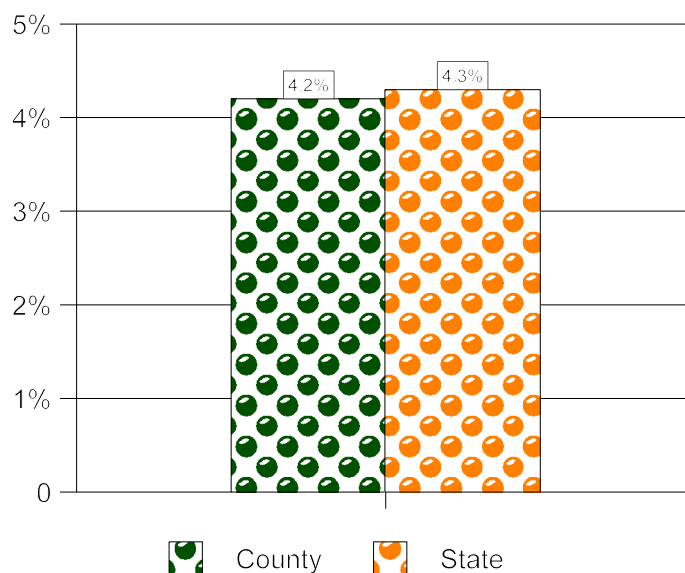
Carroll County has an age distribution comparable to that seen Statewide.

Source: U.S.Census 2000

Workforce

As of 2000, Carroll County has 4,771 persons in the civilian labor force. Of those, 4.2% are unemployed and looking for work. Statewide, 4.3% of the workforce is unemployed.

County and State Unemployed, 2000



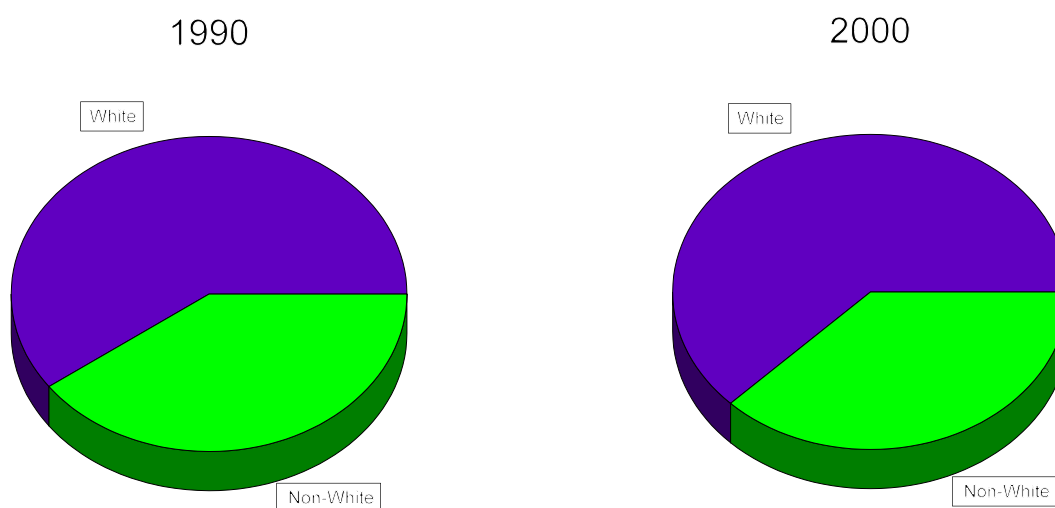
County residents who are employed will typically have improved opportunities to access health care through employer-supported health plans. Those residents who are not employed will have greater needs for Public Health services.

Carroll County has a slightly lower percent of unemployment than Statewide.

Source: U.S. Census 2000

County Racial Change, 1990 - 2000

The total Carroll County population grew 16.6% in the decade of 1990 - 2000, with the White population showing an increase of +21.4% and the Non-White population increasing +9.3% during the last ten years.

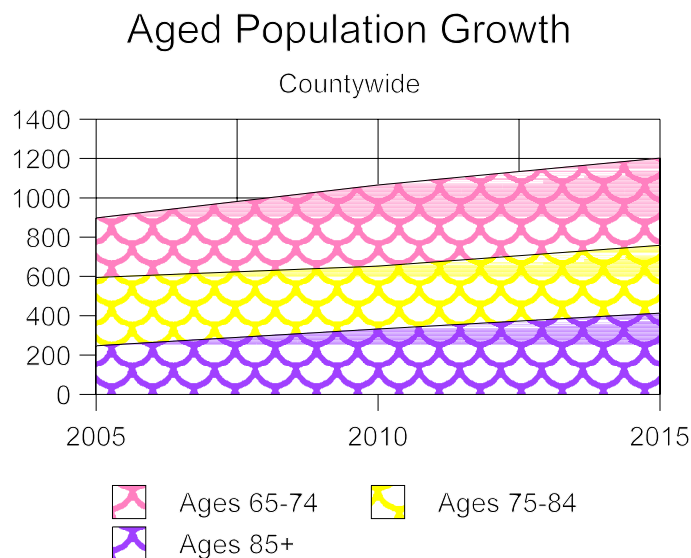


Carroll County total population grew during the last decade, with County White population increasing more than Non-White population.

Source: Vital Statistics Mississippi 2000, MSDH

Projections for Population Over 64 Years of Age

As people get older, their risk for disease and debilitating chronic conditions increase, as well as their need for more medical care. This trend becomes noticeable at about age 65 and directly increases with age.



As the population ages, the need for hospital, nursing home and chronic illness care increases. In addition, as age increases a dramatic increase in the need for home health and case management services, especially for persons over the age of 85 who live in their own homes, is also observed.

The number of Carroll County population over age 65 will continue to increase.

Source: Center for Policy Research & Planning, Mississippi Institutions of Higher Learning

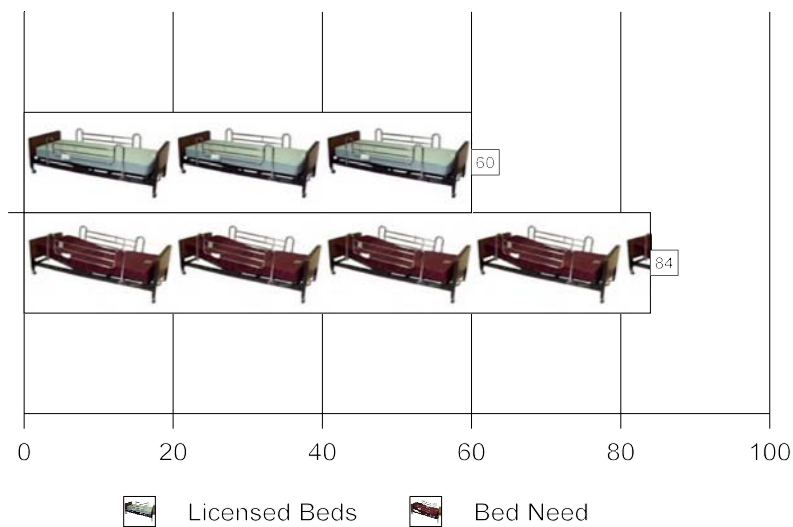
County Nursing Home Beds, Projection (2005)

There are 60 licensed nursing home beds in the County. The projected need for 2005 is for 84 beds. The need for nursing home care beds is established at:

0.5 beds per 1,000 population aged 64 and under
14 beds per 1,000 population aged 65-74
59 beds per 1,000 population aged 75-84
179 beds per 1,000 population aged 85 and older

The MSDH uses population projections prepared by the Center for Policy Research and Planning of the Institutions of Higher Learning to calculate bed need.

Carroll County Nursing Home Bed Need, 2005



In Carroll County, a significant increase in the number of people 80 years of age and older is projected.

Under current population projections, Carroll County will need additional nursing home facilities to accommodate elderly County residents.

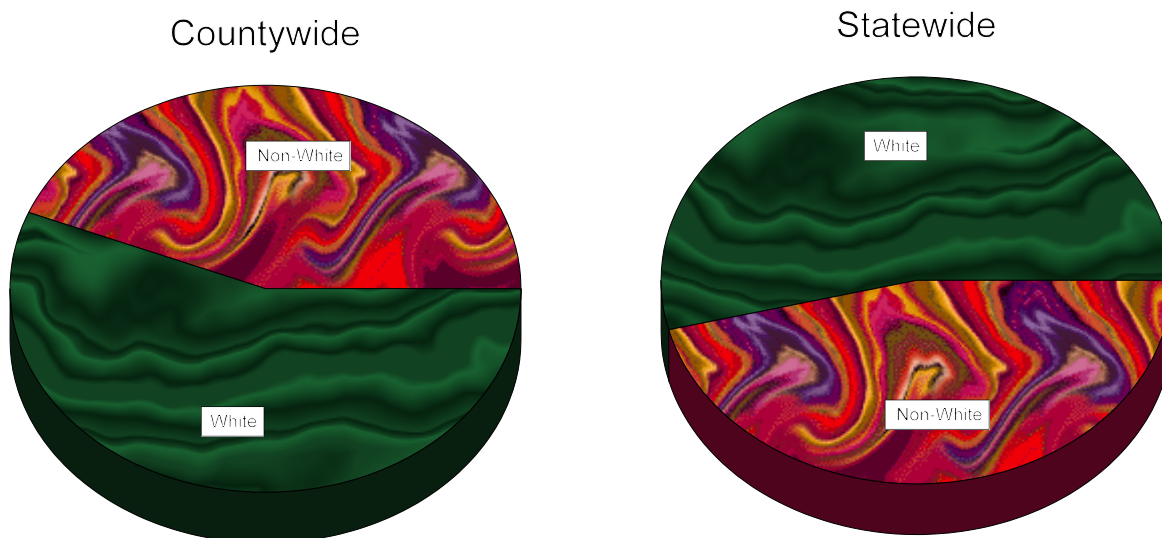
Source: MSDH State Health Plan 2003

Maternal and Child Health Indicators

Pregnancy, Infancy and Infant Mortality

Pregnancy and infancy are periods of rapid growth and development, and high vulnerability. This is the period when a small investment in preventive services can pay the greatest dividends concerning preventing illness, disability and premature death. For these reasons, infant mortality has become the measure used to compare states and nations in terms of the quality of life and access to the most basic of health-related services.

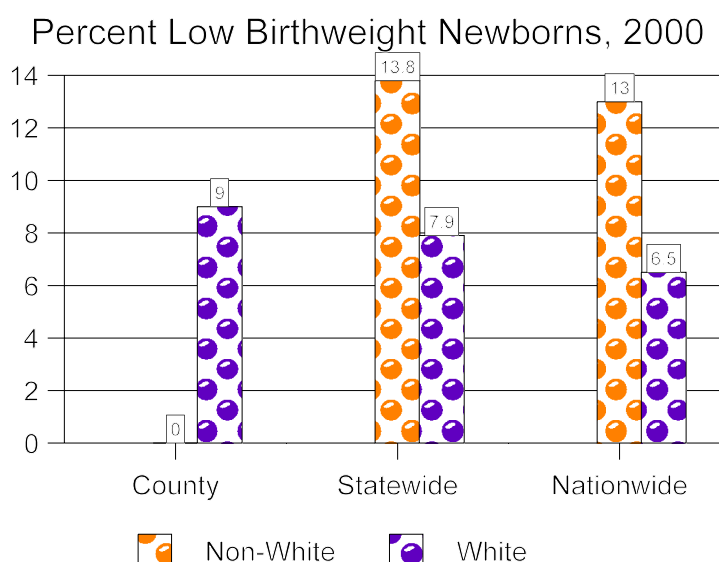
Live Births by Race 2001



Carroll County's live birth rate of 9.9 per 1,000 population is lower than the State rate of 14.9 live births per 1,000 population.

Percent Low Birthweight Newborns

A low birthweight baby is one that weighs less than five and a half pounds (2,500 grams) at birth. These babies have more illnesses and higher death rates. Low birthweight can be due to teenage mothers, poor nutritional status of the mother, prematurity, maternal or infant illness, maternal exposure to tobacco smoke, alcohol, drugs, or other causes. Adolescents, women over 35, women with pregnancies spaced too close together, and those that do not receive adequate prenatal care are all at high risk of having a low birthweight infant.

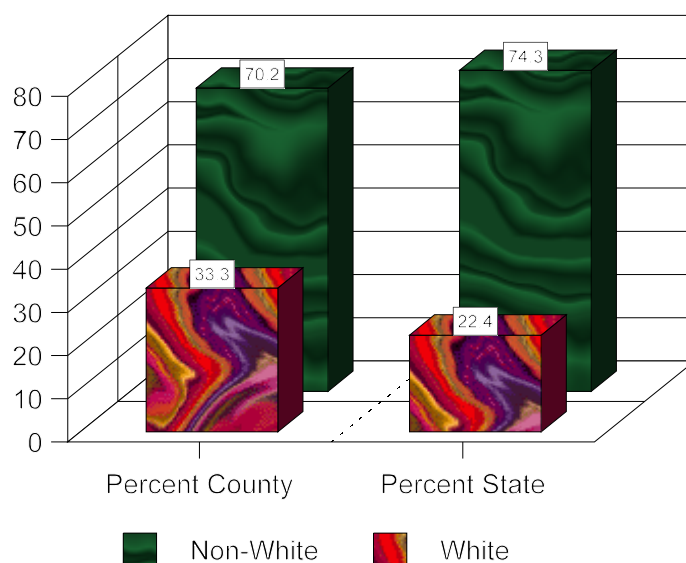


The risk of dying during the first year of life for low-birthweight babies is 24 times that for babies of normal birthweight. The high rate among African Americans of low-birthweight babies has been explained by factors such as geographic isolation (people who are unable to access support services easily) and lack of health insurance.

In Carroll County, the percent of White low birthweight newborns is higher than State and National percentages.

Source: CDC [National Vital Statistics Report 2002](#) and [Vital Statistics 2000](#), MSDH

Births to Unmarried Mothers Percent of Total Live Births, 2001



In Carroll County, 70.2% of all Non-White births are to unmarried mothers; 33.3% of all White births are to unmarried mothers. The percentage of both White and Non-White births to unmarried mothers in the County is higher than the Statewide percentage.

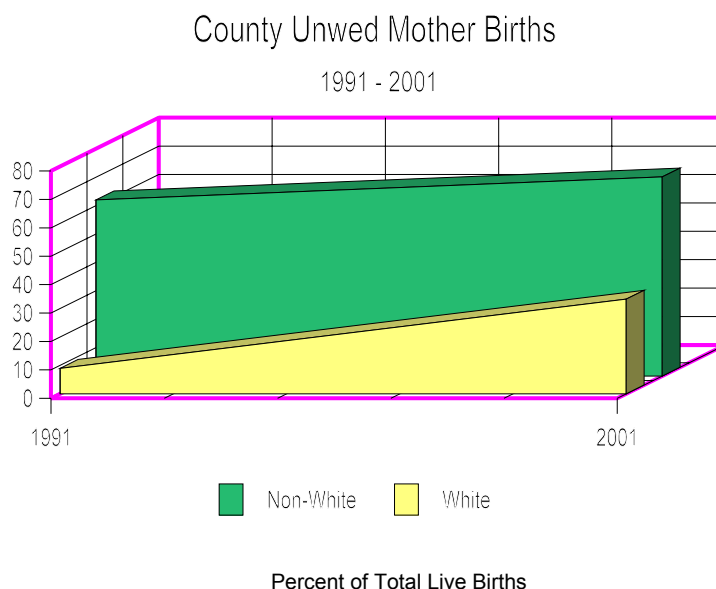
Children of unmarried mothers are substantially less likely to graduate from high school than the children of married mothers, regardless of the mother's age at the time of birth⁴. Children who grow up with married parents generally enjoy a higher standard of living than those living in single-parent households⁵.

⁴ *Out of Wedlock: Causes and Consequences of Nonmarital Fertility*, ed. Lawrence L. Wu and Barbara Wolfe [New York: Russell Sage Foundation, 2001], pp. 287-316.

⁵ *Marriage, Poverty, and Public Policy: A Discussion Paper from the Council on Contemporary Families*. Prepared for the Fifth Annual CCF Conference, April 26, 2002. Stephanie Coontz and Nancy Folbre.

Chart Source: Vital Statistics Mississippi 2001, MSDH

Percent Change, 1991 - 2001 Unmarried Mother Live Births



Out-of-wedlock childbearing has risen dramatically nationwide, from 5.3% of all births in 1960 to 33% of all births in 1999⁶. **The percent of births to unmarried mothers in Mississippi statewide is 22.4% among Whites and 74.3% among Non-Whites.**

The percentage of births to unmarried mothers in the County increased for Whites from 9.0% in 1991 to 33.3% in 2001 and also increased for Non-Whites, from 62.0% in 1991 to 70.2% in 2001⁷.

In Carroll County in 2001, 70.2% of Non-White births and 33.3% of White births were to unmarried mothers.

⁶National Center for Health Statistics, National Vital Statistics Reports, vol. 48, no.16, Oct. 18, 2000.

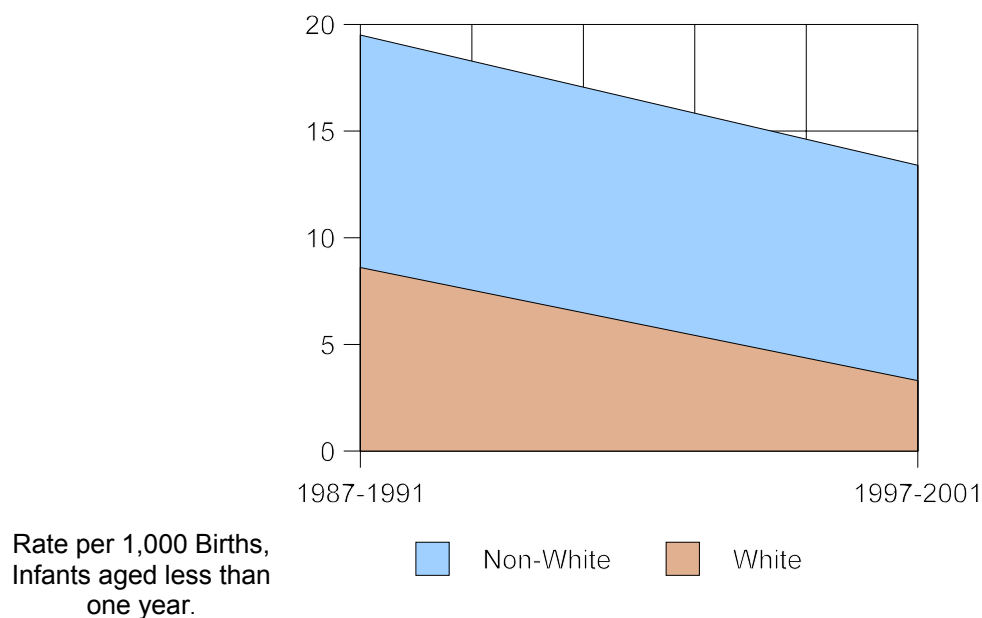
⁷Mississippi Health Futures County Data Book, MSDH, 1993; and Vital Statistics 2001, MSDH.

Infant Mortality

Infant mortality reflects deaths in the first year of life, and is measured using the infant mortality rate. Infant mortality rate is measured as the proportion of deaths in the first year of life in every 1,000 live births.

Having babies when the mother is too young or too old, having them too closely together, poor maternal health or poor nutrition all increase the risk of infant death. Chemical toxins such as alcohol, drugs and tobacco smoke also increase the risk. After the first month of life, poor infant nutrition, poor hygiene and infectious diseases all increase risk.

Carroll County Infant Mortality Rate, 1987 - 2001



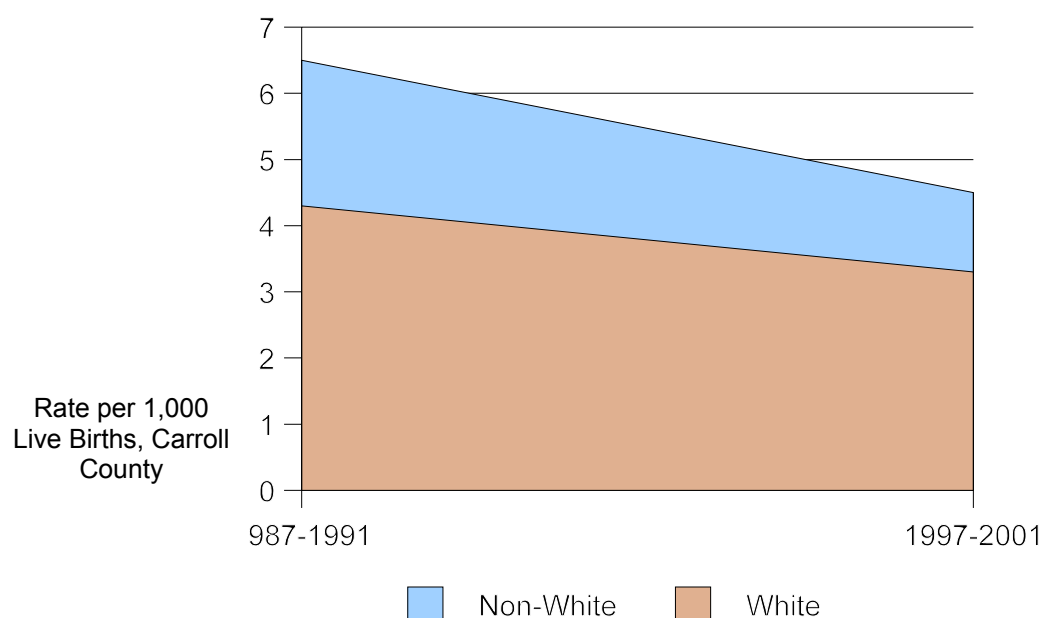
In Carroll County, the 1987-1991 infant mortality rate of 19.5 per 1,000 for Non-Whites has decreased to 13.4 per 1,000 in 1997-2001. For Whites, the infant mortality rate of 8.6 per 1,000 during 1987-1991 has decreased to 3.3 during 1997-2001.

Both White and Non-White infant mortality in Carroll County have decreased during the last ten years.

Neonatal Mortality

Neonatal mortality represents infant deaths in the first 28 days of life. Deaths during this time are generally due to causes affecting the mother before and during pregnancy. Neonatal mortality rate is measured as the proportion of deaths in the first 28 days of life in every 1,000 live births.

Carroll County Neonatal Mortality Rate 1987 - 2001



The Carroll County Neonatal death rate has decreased for Non-Whites from 6.5 during 1987 - 1991 to 4.5 during 2001. For Whites, the 2001 rate of 3.3 is lower than the 1987-1991 rate of 4.3.

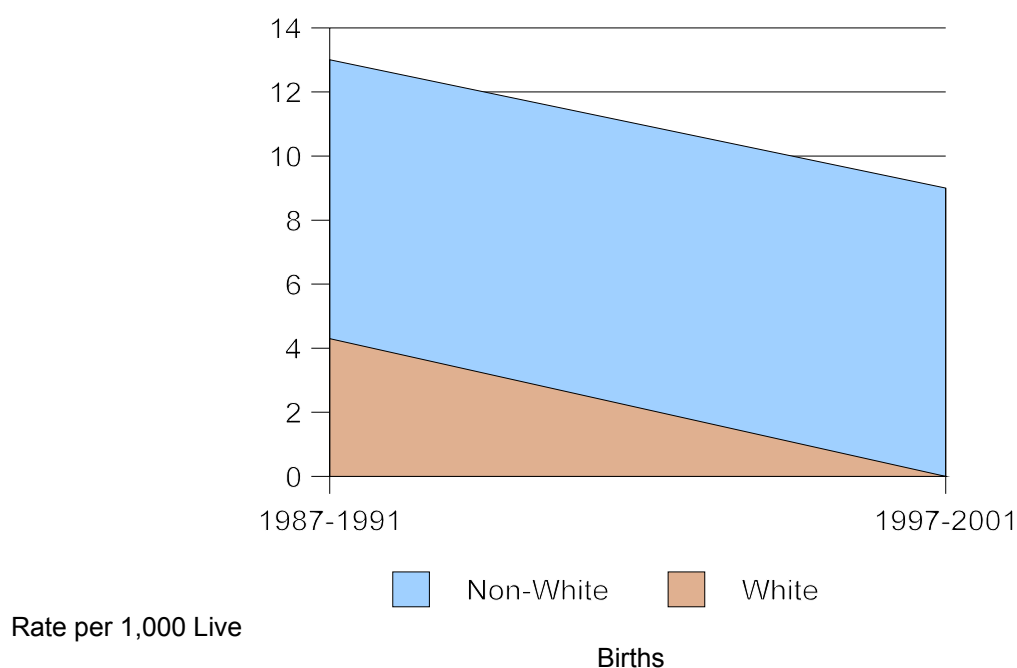
Both White and Non-White Neonatal death rates have decreased during the last ten years in Carroll County.

Source: MSDH Vital Statistics

Postneonatal Mortality

Postneonatal Mortality is measured as the proportion of deaths among infants aged 28 days to one year in every 1,000 live births. The Postneonatal mortality rate is an important measure of health, because nearly half of these deaths are caused by preventable causes such as SIDS, infections, and injuries. With education and health care interventions, postneonatal mortality rates can be reduced and the racial gap in these deaths can be narrowed.

Carroll County Postneonatal Mortality Rate, 1987 - 2001



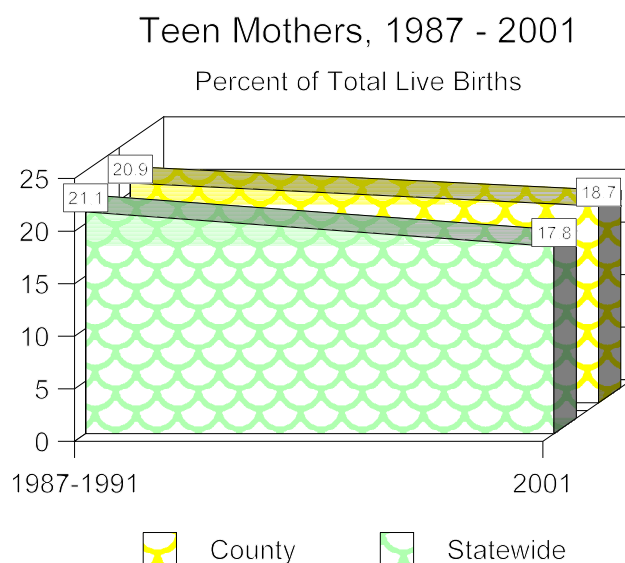
For Non-Whites in Carroll County, the postneonatal mortality rate has decreased, from a rate of 13.0 per 1,000 live births during 1987-91 to 9.0 during 1997- 2001. Among Whites, postneonatal deaths have decreased from 4.3 per 1,000 live births during 1987-1991 to a rate of zero in 1997-2001.

The Postneonatal Mortality rate in Carroll County has decreased for both Whites and Non-Whites over the past ten years.

Source: MSDH Vital Statistics

Births to Teenage Mothers 1987 - 2001

Mississippi has the highest rate in the nation of births to teens. Teen mothers are more likely to drop out of school, require long-term financial support, and be involved in child abuse. Unplanned pregnancies account for a majority of the births among women with family incomes below the poverty level.⁸



MSDH Vital Statistics 2001

Births to teenage mothers were 20.9% of the total live births during 1987-1991 in Carroll County, and decreased to 18.7% during 1997-2001. The State percentage of 21.1% in 1987-1991 was higher, but the current rate of 17.8% is now lower.

County teenage motherhood percentages have decreased slightly over the past decade.

⁸ MSDH Strategic Plan 2003 - 2007

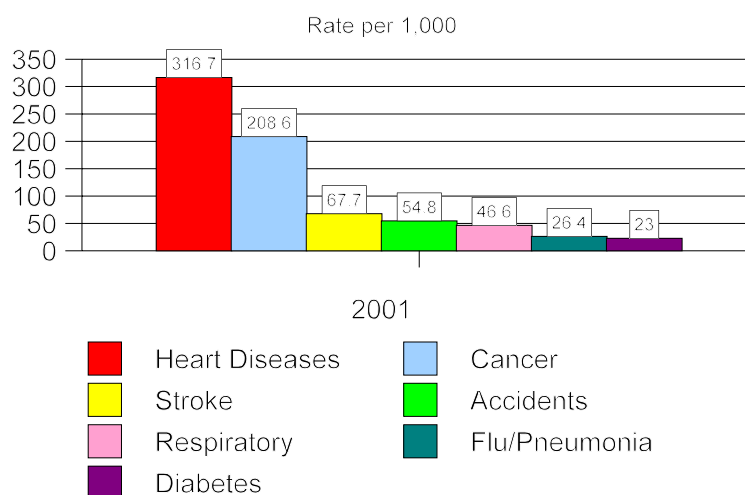
Illness and Death

Many premature deaths can be prevented, allowing the person to have more productive years of life. The majority of deaths result from heart disease, cancer, stroke and injury.

By looking at the numbers of deaths, the age, sex and race adjusted rates, and the years of potential life lost by premature deaths, much can be learned about the health of a community. Deaths during childhood, adolescence and young adulthood especially reflect community health.

This section of the County Health Profile addresses those causes of death that are most common and most preventable.

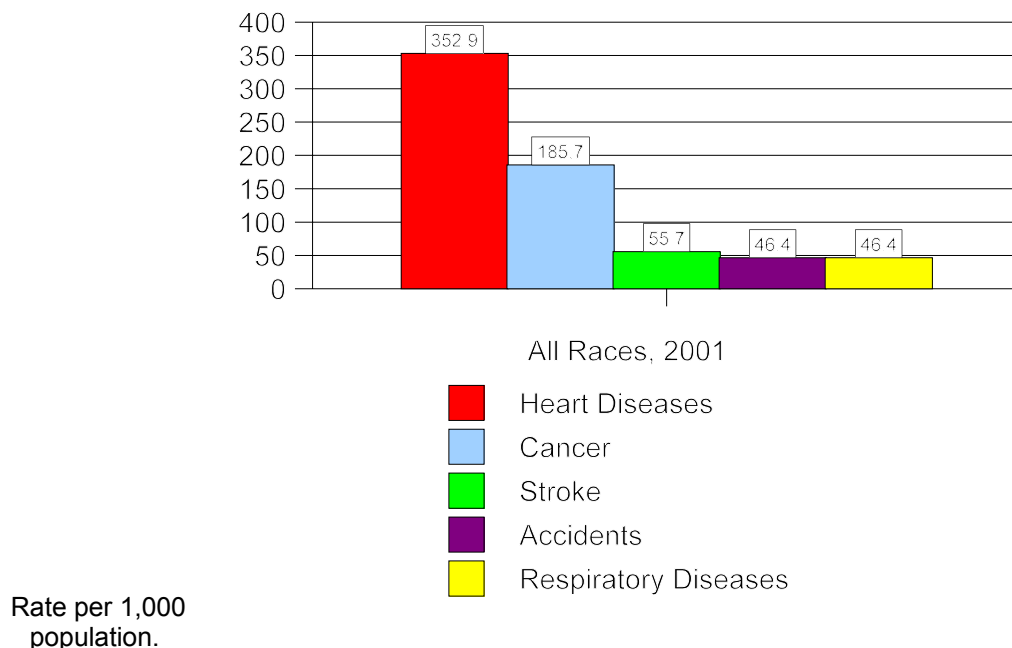
Statewide Causes of Death



Statewide, the leading causes of death are heart disease, cancer, stroke and accidents.

Causes of Death, All Races

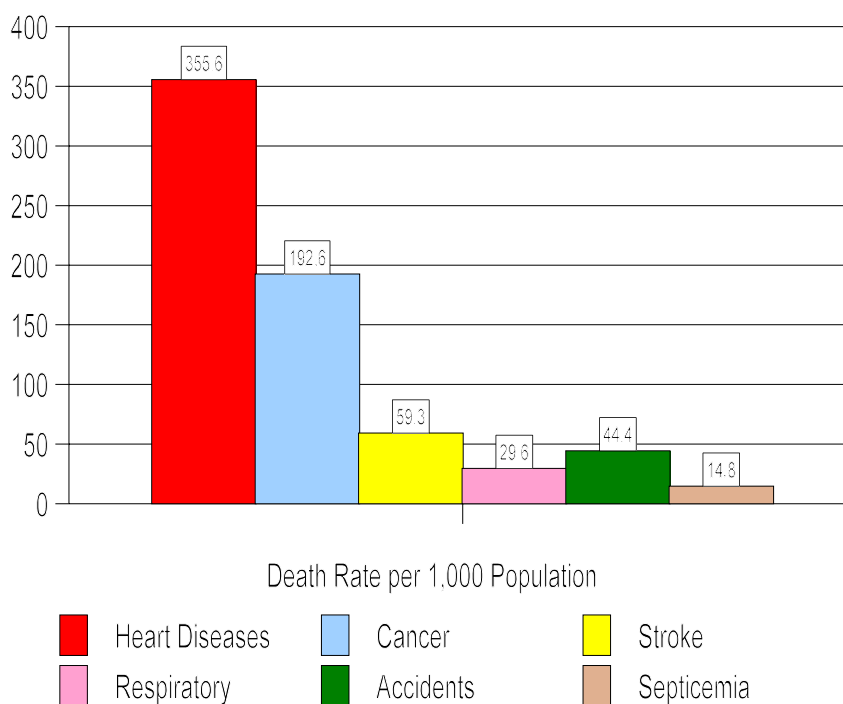
Causes of Death, Carroll County, 2001



The leading cause of death in Carroll County is Heart Disease, followed by Malignant Neoplasms (Cancer). The mortality rate of these diseases in Carroll County is similar to the rate seen statewide, as are the rates of death from cerebrovascular disease (Stroke), accidents, and emphysema and other chronic lower respiratory diseases.

The leading cause of death in Carroll County is Heart Disease.

Causes of Death, Carroll County White Population, 2001



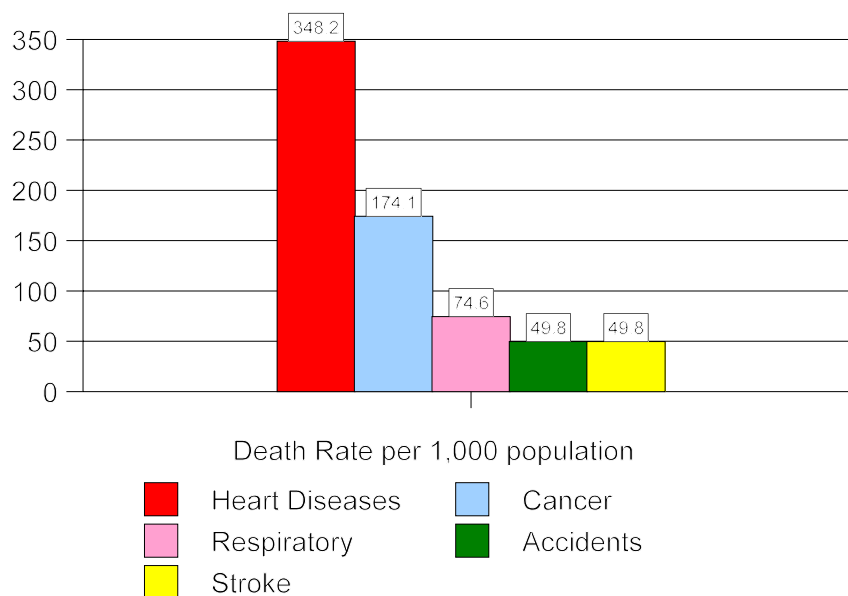
Vital Statistics 2001,
MSDH

Smoking is the single most important modifiable risk factor for cardiovascular disease and coronary heart disease. Approximately 24% of adult Mississippians are smokers. Although this percentage has decreased since the 1940's when 50-60% of all adults smoked, there have not been decreases in the percentage of current smokers in Mississippi since 1990⁹.

In Carroll County, the highest rate of death for Whites is from cardiovascular disease.

⁹Penman AD, Johnson D. The 2000 Mississippi State of the Heart Report. MSDH and the American Heart Association, Southeast Affiliate, March 2000.

Causes of Death, Carroll County Non-White Population, 2001



Mortality Rate per 1,000
population
Source: Vital Statistics
2001, MSDH

In Carroll County in 2001, the highest rate of death for Non-Whites, as for Whites, was from Heart Disease.

For reasons that are not understood, Non-Whites have about a 33% higher death rate for all cancers than Whites, according to the American Cancer Society.¹⁰ Additionally, Non-Whites have a higher rate of death due to injury.¹¹

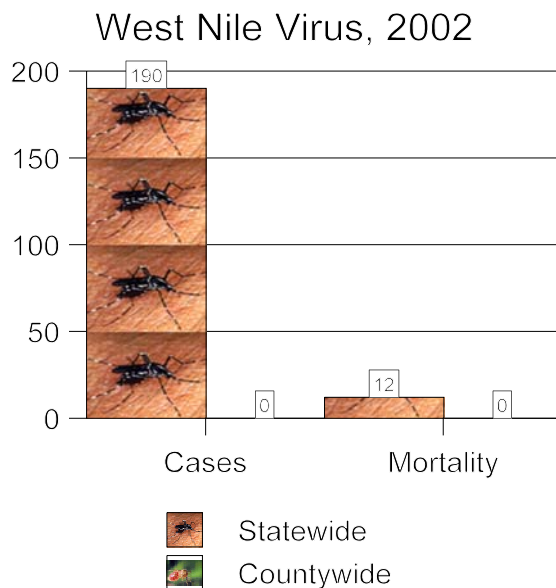
¹⁰Cancer Facts & Figures 2002, American Cancer Society, 2002.

¹¹Differences in Death Rates due to Injury Among Blacks and Whites, 1984. Jama A. Gulaid, Chukwudi Onwuachi-Saunders, CDC, MMWR, Surveillance Summaries, July 01, 1988/ 37 (SS-3); 25-31.

West Nile Virus

West Nile virus is spread by the bite of an infected mosquito, and can infect people, horses, and many types of birds. Most people who become infected with West Nile Virus will have either no symptoms or only mild ones. However, West Nile Virus infection can result in severe and sometimes fatal illnesses.

State and County Human Cases and Mortality



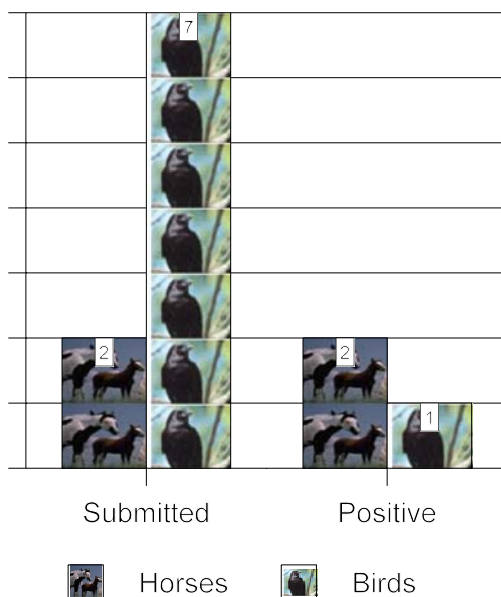
In Mississippi in 2002, there were 190 human cases with 12 mortality from West Nile Virus. In Carroll County, there were three humans tested for West Nile Virus, but no human cases nor mortality from the Virus in 2002.

West Nile Virus

Carroll County, 2002

Since the original 1999 outbreak in New York City, the finding of dead birds that test positive for West Nile Virus has always been a precursor to human cases of the virus. Testing dead birds is the best early detection method for the presence of the virus in the area. Horses are also tested, since approximately 40% of equine West Nile Virus cases result in the death of the horse.

Carroll County Bird and Horse West Nile Virus

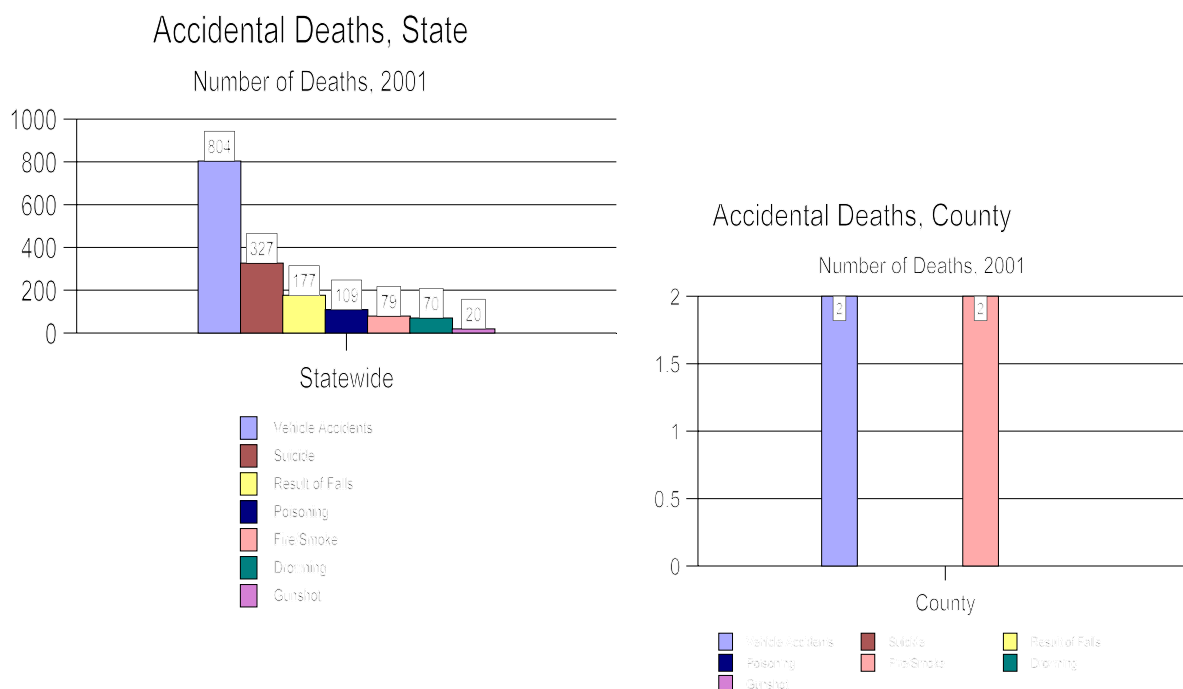


In Carroll County in 2002, there were 2 horses submitted for testing and of those, both horses tested positive for West Nile Virus.

There were 3 reports of dead birds in 2002 in Carroll County and 7 birds submitted for testing. Of those, one bird tested positive for West Nile Virus.

Injuries

Accidental Deaths, State and County

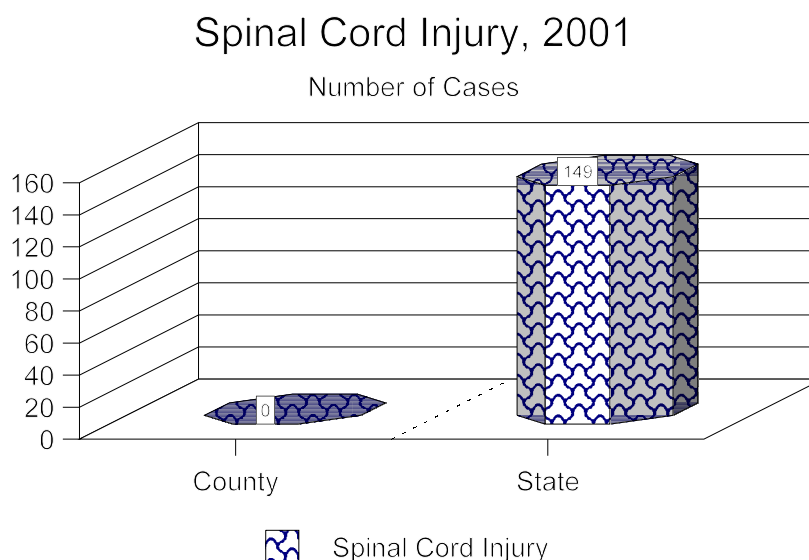


Carroll County in 2001 had 2 deaths from motor vehicle accidents and 2 deaths from smoke, fire, or flames.

Spinal Cord Injuries

Statewide and Countywide, 2001

Spinal Cord Injuries have a profound effect on the future of Mississippians, since they often remove an individual from study and work during their most productive ages. These injuries cause many people to need state support for the remainder of their lives.



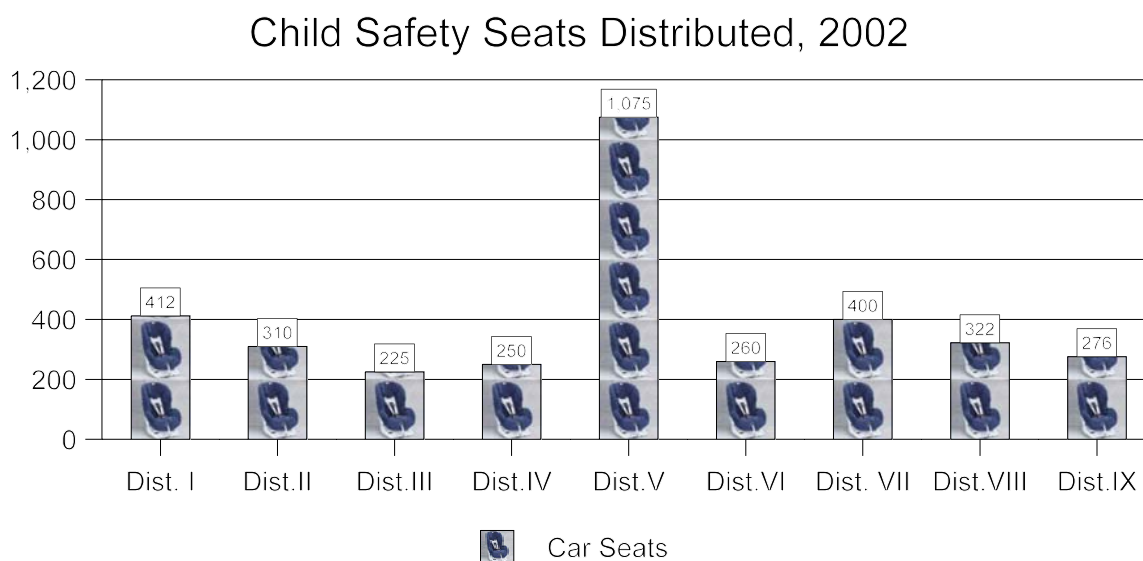
The leading causes of spinal cord injury vary by age. Among persons under age 65, motor vehicle crashes are the leading cause. Among persons over 65, most spinal cord injuries are caused by falls.

In 2001, Carroll County had no cases of spinal cord injury. Throughout the State, 149 people sustained spinal cord injuries.

Injury Prevention

Injuries are the single greatest cause of mortality in Mississippi for persons between the ages of 1 and 44. Mississippi's mortality rate from injuries is the second highest in the nation. The Injury Prevention Program manages activities aimed at reducing injuries by coordinating the MSDH child safety seat program and other injury prevention efforts including bicycle safety projects and fire prevention projects.

In 2002, a total of 3,530 child safety seats were purchased by the MSDH and distributed statewide. Child passenger safety packets were distributed along with the car seats.

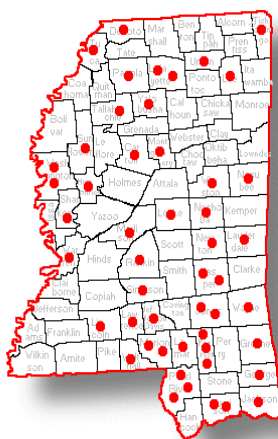


In Public Health District III, which includes Carroll County, 225 car seats were purchased and distributed in 2002.

School Health Nurses for a Tobacco-Free Mississippi

The School Health Nurses for a Tobacco-Free Mississippi program places school nurses into Mississippi's public school system whose major job function, other than their normal day-to-day nursing duties, is to teach Mississippi school age children the dangers of tobacco use.

During the 2000 - 2001 school year, nurses in the tobacco program conducted activities aimed at reducing or preventing youth tobacco use for 44,250 students in Mississippi.



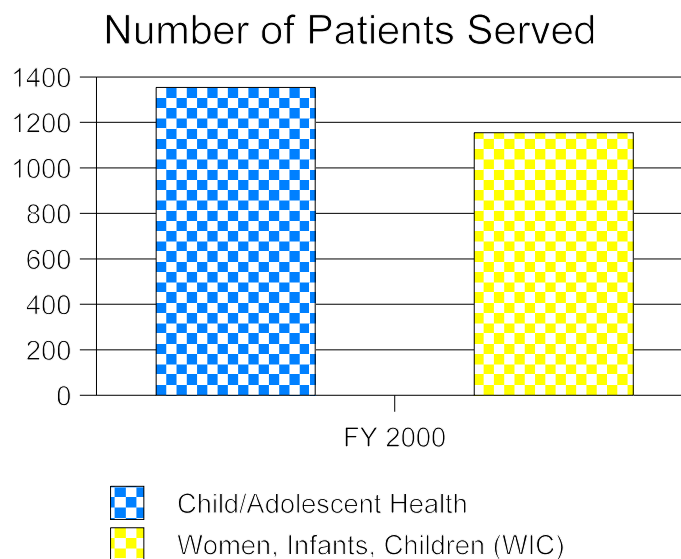
Currently, the Partnership for a Healthy Mississippi funds 51 school districts statewide with the tobacco prevention program. **Carroll County currently has a Tobacco School Nurse program.**

Students exposed to the School Nurses for a Tobacco-Free Mississippi program were significantly more likely to know tobacco can hurt and kill; that cigarettes contain drugs; that tobacco causes cancer and heart disease; and that second-hand smoke is dangerous¹².

¹²Mississippi Youth Tobacco Survey 2000, MSDH.

Public Health Services to the County

Patients Served by MSDH, Carroll County, 2000



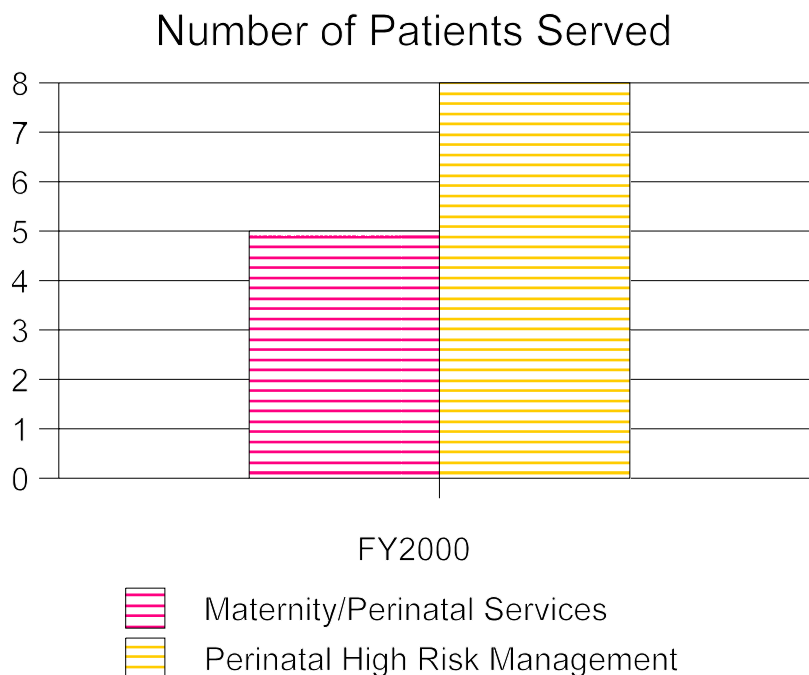
The Supplemental Food Program for Women, Infants, and Children (WIC) provides health screening, certification, and nutrition education to pregnant, breast-feeding, and postpartum women, infants, and children who qualify. Monthly food packages are distributed directly to participants through 93 distribution centers located in every county in the state.

The Child and Adolescent Health Program provides childhood immunizations, well child assessments, limited sick child care, and tracking of high-risk children. Services are provided via a multidisciplinary team including medical, nursing, nutrition, and social work.

In Carroll County in 2000, 324 people were served by the WIC program and 220 patients were served by the Child/Adolescent Health program.

Public Health Services to the County

Patients Served by MSDH, Carroll County, 2000



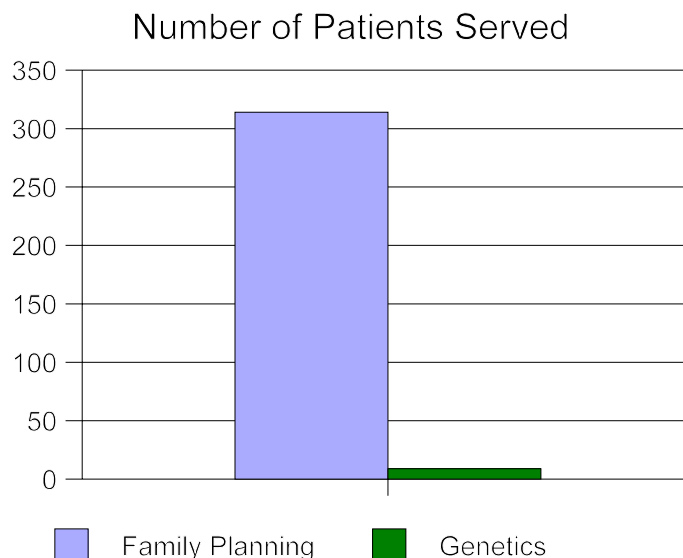
Maternity services are provided by the Department of Health statewide to more than 12,400 women through County Health Departments, targeting low-income pregnant women.

The Perinatal High Risk Management/Infant Services System program is designed to reduce low birth weight and infant mortality through a multidisciplinary, family-oriented, risk reduction program that provides an array of supplemental services including nutrition and counseling.

In 2000, 5 Maternity patients and 8 Perinatal High Risk Management patients were served by the MSDH in Carroll County.

Public Health Services to the County

Patients Served by MSDH, Carroll County, 2000



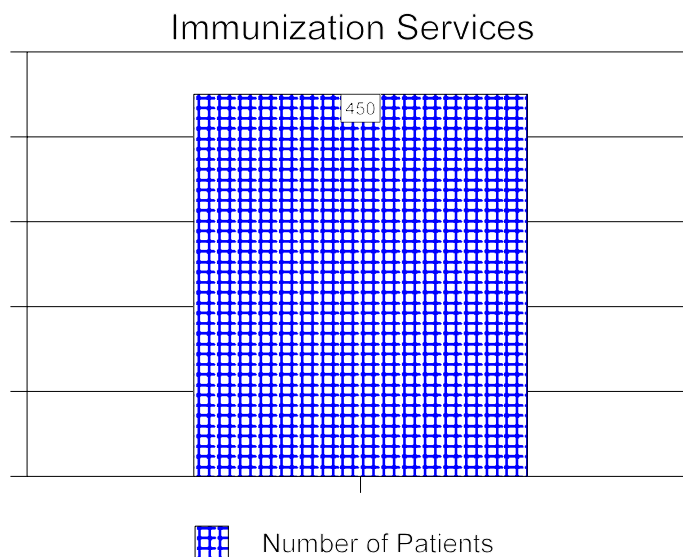
Mississippi leads the nation in births to teens. **The Family Planning Program** seeks to provide counseling, medical examination, education, and contraceptives for teenagers at risk and low-income women to allow individuals to prevent unplanned pregnancies and to space children.

The Genetics Program provides screening, diagnosis, counseling, and follow-up for a range of genetic disorders and has developed comprehensive genetic services statewide. The Genetics Program also collects data for the birth defects registry.

In Carroll County, the Genetics program provided service to 9 patients and the Family Planning Program provided service to 314 patients in 2000.

Public Health Services to the County

Number of Patients Served, Carroll County, 2000



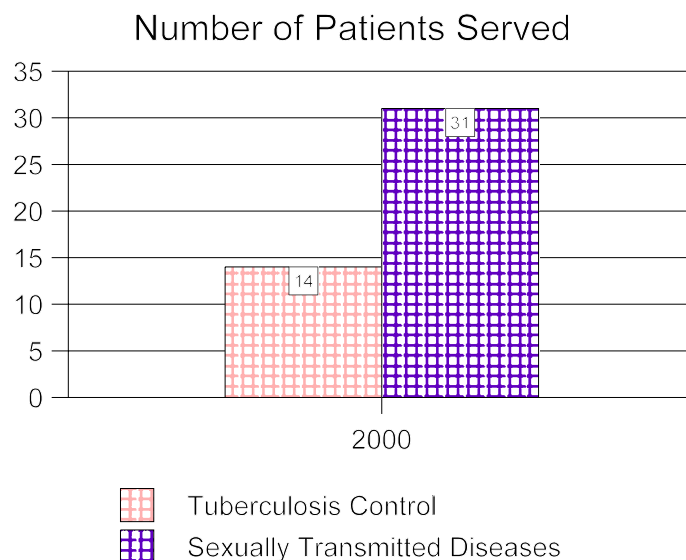
Vaccines are among the safest and most effective measures for the prevention of infectious and communicable diseases. The Division of Immunization provides services designed to limit illness and death due to childhood vaccine-preventable diseases such as diphtheria, tetanus, pertussis, polio, measles, mumps, rubella, influenza-type b, hepatitis A, hepatitis B, and chickenpox.

The Division administers vaccines, monitors immunization levels, provides disease surveillance and outbreak control, information and education, and enforcement of immunization laws.

In 2000, the Immunization Program served 450 patients in Carroll County.

Public Health Services to the County

Number of Patients Served, Carroll County, 2000



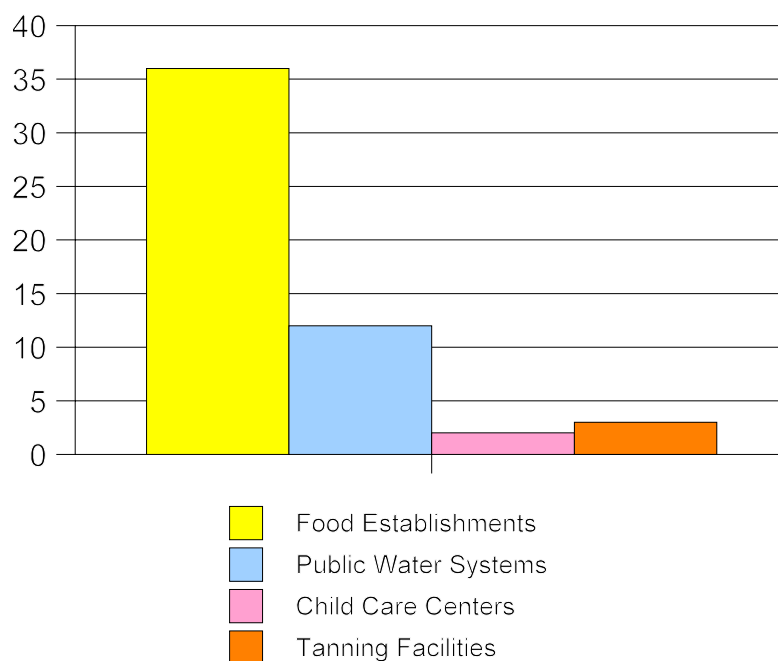
There were 154 new cases of tuberculosis (TB) reported in Mississippi during 2001. The TB program provides early and rapid detection of persons with or at risk of developing TB; treatment and follow-up of diagnosed cases; preventive therapy to persons at risk of developing TB; and technical assistance to public and private agencies and institutions, particularly hospitals, nursing homes, mental institutions, and penal institutions.

Sexually Transmitted Diseases (STDs) are infections spread from one person to another person during sexual contact. The goal of the STD control program is the reduction and practical management of STD in Mississippi.

During the year 2000, the Tuberculosis Control Program served 14 persons in Carroll County, and the STD program served 31 persons in the County.

Environmental Health Services

Number of Inspections, Carroll County, 2000



Health Protection for the people of Mississippi is one of the chief responsibilities of the Mississippi State Department of Health. From the quality of our food and water, to child care and professional licensing, our concerns embrace every aspect of life across the state. Our goal is to achieve and maintain the highest standard of health for all Mississippians.

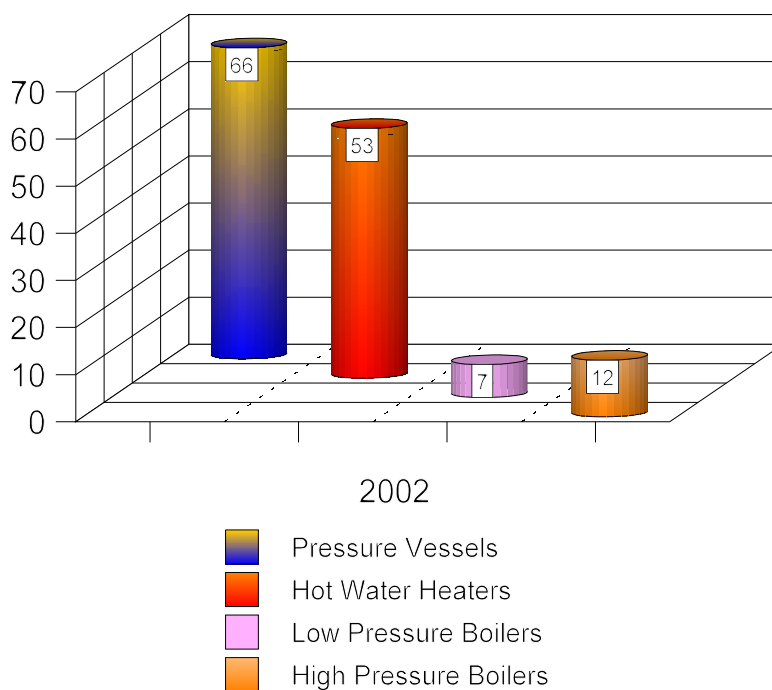
In 2000, 36 Food Establishments, 12 Public Water Systems, 3 Tanning Facilities and 2 Child Care Centers in Carroll County were inspected by the Department of Health.

Boiler and Pressure Vessel Safety

Citizens and their properties, both public and private, are endangered by unsafe boiler and pressure vessels. Explosions have caused fatalities and considerable property damage. Tanks storing compressed air are the objects most frequently involved in such explosions.

The Boiler and Pressure Vessel Safety Branch conducts inspections and certifies the use of all boilers and pressure vessels covered by law. Violations were found in state-owned buildings, schools, hospitals, nursing homes and small businesses.

Carroll County, Number of Inspections, 2002

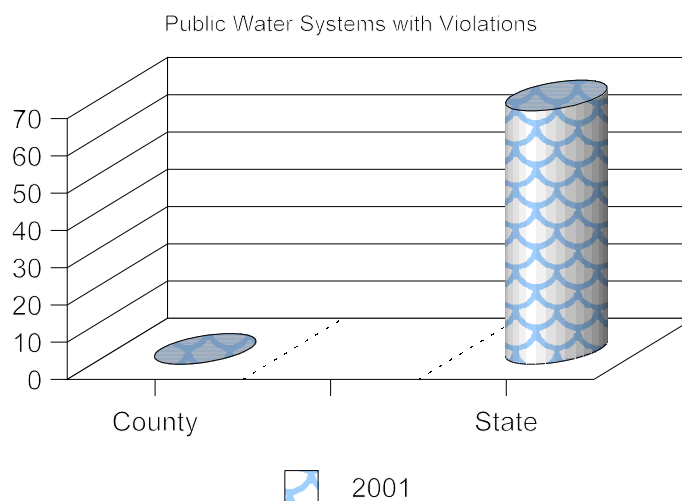


In 2002, the Boiler and Pressure Vessel Safety Program inspected a total of 138 boilers, pressure vessels and heaters in Carroll County on either an annual or biennial basis.

Public Water Supply

Public water supplies provide drinking water to 96% of the state's citizens. The Public Water Supply Program monitors drinking water quality, follows-up and resolves water quality violations and works toward the goal of ensuring public water supplies comply with all Safe Drinking Water Act water quality standards.

Maximum Contaminant Level



The Environmental Protection Agency sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels. During 2001, 68 Public Water Supplies incurred Maximum Contaminant Level (MCL) violations statewide.

No public water supplies in Carroll County incurred MCL violations in 2001.